

**WHAT IS CLAIMED IS:**

1. A scanning device for radiographic media comprising:
  - (a) a rotatable vacuum drum comprising an external surface, and wherein the drum rotates about a longitudinal axis;
  - (b) a radiographic media disposed on the external surface;
  - (c) a moveable scan bar mounted on a first and second translation rod adjacent the drum;
  - (d) at least a first scan module and a second scan module mounted on the moveable scan bar;
  - (e) a translation drive connected to the moveable scan bar for moving the moveable scan bar perpendicular to the longitudinal axis;
  - (f) an analog to digital converter in communication with the scan modules for receiving scanned signals from the scan modules;
  - (g) a control process unit for receiving scanned signals; and
  - (h) an output device for writing the received scanned signals onto diagnostic media.
2. The device of claim 1, wherein the drum rotates between 100 and 1000 rpm around the longitudinal axis.
3. The device of claim 1, wherein the radiographic media is a phosphor sheet.
4. The device of claim 1, wherein the moveable scan bar is a rectangular metal structure mounted on the rods and adapted for quick translational movement along the scan bar.
5. The device of claim 1, wherein each scan module comprises:
  - (a) a housing comprising a channel; a cylindrical center chamber in communication with the channel comprising a mirrored surface; a first

opening communicating with the cylindrical chamber; and a second opening communicating with the cylindrical chamber;

(b) a laser is disposed in the housing and adapted to generate a beam of stimulating electromagnetic radiation through the channel and the first opening to stimulate an area of the photo-stimulatable radiographic media, and wherein the stimulated area emits light and reflected light to enter the first opening and the cylindrical chamber;

(c) a light detector disposed in the second opening for receiving light emitted and reflected into the cylindrical chamber; and

(d) a filter disposed at the second opening of the housing for selectively passing only the emitted light from the stimulated area of the photo-stimulatable radiographic media to the light detector.

6. The device of claim 5, wherein the cylindrical center chamber is elliptical.

7. The device of claim 5, wherein the radiographic media is a phosphor sheet.

8. The device of claim 5, wherein the laser is a multimode, 635 nanometer, 100 mW, or a single mode 635 nanometer, 100 mW laser.

9. The device of claim 5, wherein the filter is a blue filter.

10. The device of claim 5, wherein the housing is a plastic, a polycarbonate, a composite, or a metal.

11. The device of claim 5, wherein the housing is a molded one-piece construction.

12. The device of claim 5, wherein the mirrored surface is an elliptical reflector comprising an overall length between 15 mm and 30 mm and a degree of curvature of the resulting chamber between 20 degrees and 30 degrees.

13. The device of claim 1, wherein the control process unit is a computer.

14. The device of claim 1, wherein the output device is a film writer or display.

15. A method for scanning radiographic media and writing scanned images on diagnostic film comprising:

- (a) placing the radiographic media on a vacuum drum;
- (b) bringing the radiographic media up to a predefined rotational speed;
- (c) scanning the radiographic media with all scanning modules simultaneously;
- (d) converting the scanned images from analog to digital images;
- (e) compiling with a control process unit the digital images from the different scanning modules forming a continuous and complete image; and
- (f) transmitting the compiled and complete digital image to an output device.

16. The method of claim 15, wherein each scan module scans a 1-inch swath of the media.

17. The method of claim 15, wherein the output device is a film writer or an imaging display.

18. The method of claim 15, wherein the complete image is stored in the control process unit.

19. The method of claim 15, further comprising the step of using the output device and writing the complete image on diagnostic media.